

## ABSTRACT

The present invention provides a switching circuit comprising a current detecting circuit that detects current waveform of a main switch in real time waveform and outputs it in low impedance. The switching circuit comprises the current detecting circuit having the main switch (11), of which on-voltage shows resistance characteristics, wherein a gate terminal is connected to a driving circuit (4) and further either terminal of drain or source thereof is connected to a fixed potential (3) and the other terminal thereof is connected to a load circuit (2) respectively, a first resistance element (21), of which resistance value is higher than on-resistance of the main switch connected to the fixed potential (3), a subsidiary switch (12), a source terminal thereof is connected to the first resistance element (21), an amplifier (6) that amplifies comparatively voltage generated in the first resistance element (21) and outputs to a gate terminal of the subsidiary switch (12) and the second resistance element (22) that generates voltage by amplifying on-current of the main switch(11) by connecting to the drain terminal of the subsidiary switch (11).